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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/047,207	01/15/2002	Hong Wan	P01,0367	5757

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EXAMINER

EASTHOM, KARL D

ART UNIT	PAPER NUMBER
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2832

DATE MAILED: 05/19/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.  
10/047,207

Applicant(s)  
Wan

Examiner  
Karl Easthom

Art Unit  
2832

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on Mar 12, 2003
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above, claim(s) 18-30 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 and 31-35 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some\* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_ 6) ☐ Other:

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1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3, 6-7, 11-14, and 31 are rejected under 35 U.S.C. 102(b) as being anticipated by Lienhard et al. Lienhard et al. discloses the claimed invention at Figs. 2-3 where the input strap 9,10 has several turns depicted at Fig. 1 coupled between the first and second input terminals, "so that a magnetic field is generated over two of the magnetoresistors 1, 4 in one direction, ...and generated over magnetoresistors 2,3 in the opposite direction. That is, the input strap is considered to comprise portions 9, 10 since 10 is coupled to the input portion in a feed back circuit and 9 produces a field opposite to that of 10. As a further alternative, the claim is met at Fig. 4 where the strap 30 is isolated from the magnetoresistors and is thus an input strap, since it has an isolated input. In claim 3, there are multiple turns as noted in either the coil 9 or 30. The two layers of claim 6 is as depicted. The claim 7 the dielectric layer is disclosed at col. 3, lines 5-35 as insulating layers. For claim 11, the input coil has portions running along the different resistors, where the whole coil runs alongside all resistors, so that different portions in one turn or adjacent turns, for example, meet the claim. Opposite sides of one turn or different turns in one coil carry current in opposite directions between ends of a finite portion just described.

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3. Claims 1-17 and 32-35 are rejected under 35 U.S.C. 102(b) as being anticipated by Wan. Wan discloses the claimed invention at Fig. 1 where the input strap is 54, and the magnetoresistors are 24-30. That is, while the input strap 54 is described as a reset strap, it still meets the claim since it can function as an input strap as it is isolated, and also produces fields in 28, 30 opposite from that of 24, 26. The elongated portions of claims 4-5 are at the top and bottom of Fig. 2. In claims 9-10, 16-17, and 34-35, the reset coil is the coil 72, 74 having the portions claimed. In claims 11 and 32-33, the first and second portions are the portions under the different magnetoresistors. They run along a length where a length is any finite portion. That is, for claim 11, the two portions of at least one turn have current opposite in the different resistors 24 and 28, for example.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 8 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lienhard et al. in view of Black, Jr. et al. '426. The claimed invention is disclosed except the insulating layer over the input strap. As noted above, Lienhard discloses a number of insulating layers to insulate the various layers. Black also discloses such layers, including a layer to insulate the whole device as an optional protective layer at col. 3, lines 35-50. It would have been obvious to

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provide such an optional layer to protect the device where both reference recognize that all conductive layers must be protected from each other by insulating layers so that to leave one exposed would defeat all purposes of protecting anyone.

6. Applicant's arguments filed 3/12/03 have been considered but are persuasive only as to Rahman. Applicant argues that the conductor 30 is not the input coil 9 in Lienhard. This does not explain why the conductor 30 does not meet the claim as the input strap as noted. As to the strap 9,10, applicant argues that the field  $H_a$  is in the same direction. However, this does not address the fact that  $H_a$  is the sum of two fields having opposite directions,  $H_m$  and  $H_h$ , thus meeting the claim. Further, since there is a finite delay in the feedback line, the two fields will not exactly cancel each other, and applicant's broad claims read on this situation. Both the straps 9,10 produce an input in the resistors so are input straps. Applicant further argues that the coil 10 is not coupled to the input terminals of 9. This is not correct. The coupling occurs by reciprocity, where 10 is coupled to 9, and vice versa. That is, a field at one is coupled to the other by producing a field thereat. As to claim 11, applicant argues that the input coil does not have portions running along the different resistors. This is not correct where the whole coils runs alongside all resistors, so that different portions meet the claim. Opposite sides of one turn or different turns in one coil carry current in opposite directions between ends of a finite portion just described. Applicant argues that the strap 54 of Wan is not an input strap because it is a set/reset strap. This is not correct. Because the strap can function as either an input strap or a set/reset strap, it meets the claim. In fact, the set/reset is a form of an input since the resistors see

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an input from the set/reset strap. As to the argument that claim 9 exemplifies the difference by adding the set/reset strap, this only amplifies the lack of a difference in claim 1, since of course, that claim has no such limitation. And as to claim 9, this is met by the other strap 70, which can be used to set or reset the resistors, regardless of what it is called in the patent. Applicant stresses that the examiner cannot call an "elephant" a "lion", when those of skill recognize it only as a "lion". The flip side of the coin is that applicant cannot obtain a patent by naming old parts with different names. There is no evidence that one of skill would not recognize that the set/reset strap could not be used as an input strap. Further, the argument is irrelevant, since the question is whether it can be so used, not whether one could recognize it. Applicant must provide evidence that structurally, the set/reset strap could not be used as the input strap as claimed. Applicant points to no structural limitation that renders the device distinct. As to claim 11, applicant agrees there are two portions, but the argument about what is lacking is not clear.

**7. THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however,

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will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karl Easthom whose telephone number is (703)308-3306. The examiner can normally be reached on M-Th. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Elvin Enad, can be reached on (703)308-7619. The fax phone number for the organization where this application or proceeding is assigned is (703)308-7722. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.



**KARL D. EASTHOM**  
**PRIMARY EXAMINER**